

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of:)	
)	
Digital Audio Broadcasting Systems)	
And Their Impact on the Terrestrial)	MM Docket No. 99-325
Radio Broadcast Service)	

**Comments of the
International Association of Audio Information Services (IAAIS)
to the
Further Notice of Proposed Rulemaking
and Notice of Inquiry**

June 15, 2004

INTRODUCTION

The International Association of Audio Information Services (IAAIS) is a membership group of reading and information access services for people who are blind, legally blind, visually impaired, or who have other disabling conditions that prevent their independent use of print materials. In the United States alone there are millions of Americans who need the services of IAAIS member stations and who depend on those stations for their only access to daily home-delivered newspapers in audible form. IAAIS member stations are most often carried as the subcarrier programming on a non-commercial FM station. Any plans for the future of broadcasting that might damage these fragile signals and impair reception on their expensive SCA receivers are of particular concern to IAAIS members.

IAAIS is grateful to the Commission for its pro-active, community wide approach to DAB in the United States. Throughout the history of this proceeding the Commission made very clear its intentions to include minority populations and those organizations that serve them such as radio reading for people who are blind or visually impaired, physically disabled or otherwise unable to use print by reason of a disability. The inclusive stance of the Commission has fostered several working relationships between IAAIS and others including broadcast equipment manufacturers, public radio, receiver manufacturers, and organizations serving blind populations such as the American Council of the Blind and the National Federation of the Blind.

Through these working relationships, IAAIS has been able to develop a collaborative strategy that not only supports the Commission's goal for a quick roll-out of DAB in the United States, but takes into account the needs of 268 million Americans¹ who might otherwise be unable to use the new digital receivers.

¹ <http://www.census.gov/hhes/www/disable/sipp/disab97/ds97t1.html>

We agree with the public statements of Commissioners Abernathy, Copps, and Martin who, following the Seattle NAB Radio Show, characterized this broadcast delivered service as offering interactive services. To continue without taking into account the ability of the disabled American public to use the full range of both basic and advanced applications in digital radio services flies in the face of Section 255 of the Telecommunications Act. Certainly, we do not wish to see another telecommunications system or an entire class of consumer equipment that has built-in roadblocks to a disabled person's use such as has been the case with cell phone technology.

IAAIS' work with Kenwood USA and hopefully other manufacturers in the near future will help the consumer electronics manufacturing industry see the value of making a radio for digital service that will be welcomed by millions of Americans who have disabilities – including those who are blind or otherwise print disabled.

Our comments here address the Commission's request for comments on several key points:

1. The pace of transition to all digital broadcasting
2. The potential impact of DAB radios sold in the US that are not accessible to blind or visually impaired citizens
3. Use of extended hybrid modes
4. Multiple program streams per station – Priority of services
5. Protection in digital similar to 82-1, right to use SCA on Non-commercial stations
6. Protection of SCA from DAB interference
7. Subscription style services
8. Emergency alerts

Above all, we stress that our original position on a new digital radio system is unchanged, namely that

- Radio reading services for blind or disabled people should not suffer harm to existing SCA transmissions by the adoption of operating rules or guidelines as a result of this proceeding.
- Radio reading services will move into digital operation with the rest of the broadcast industry.
- Digital spectrum on stations making the transition should include room for a reading service in every market.
- Receivers manufactured for DAB must be accessible by blind and visually impaired populations.

Section 1 The pace of transition to all digital broadcasting

IAAIS member stations stand to benefit greatly from a quick transition to digital. For as long as they have existed, reading services delivered on SCA have had to deal with poor audio quality that was directly tied to the fragile delivery mechanism. Currently, listeners to RRS "put up" with the lower audio quality – often characterized in the same audio category as a poorly received AM signal - as there is no other source of the information that the RRS provides. Certainly it is the best interest of the existing millions of listeners to migrate them to a better sounding service sooner rather than later.

We feel a quicker transition to digital broadcasting will help us deliver more robust, better sounding reading services sooner. This is vital as the population of people who cannot read because of vision or other disability is growing larger and larger as the baby-boom generation moves into retirement years. These men and women have higher expectations of their audio delivered services based on the technology they have become accustomed to using. Reading services must be in position to serve them with an audio service that will meet their expectations for audio quality or they will not use the services and suffer even greater loss of independence when they need a reading service in their near future.

In addition, the SCA spectrum space occupied by IAAIS members has been a target many times by commercial ventures wishing to use the channel for profit. Each time, SCA delivered reading services had to defend their right to exist on that space and in some cases has been forced off the SCA. Every broadcaster is to serve the community interest, but no other broadcaster except for a radio reading service has had to justify its' right to the spectrum it occupies based on the pecuniary interests of an outside firm. In a digital system, IAAIS envisions that the Commission will once and for all, designate a space in the digital spectrum for radio reading services and end this constant attack on information access for blind people everywhere. This too cannot happen soon enough.

IAAIS wishes to get out of the specialty radio business in its transition to digital. Changing who has to purchase the receiving equipment (from non-profit service to consumer) not only makes it easier for a reading service to deliver services, it helps to spur demand for HD radios. It only makes sense to incorporate the reading service functionality in the new class of HD receivers. With millions of listeners on SCA equipment, and assuming the Commission requires HD radios to meet accessibility guidelines, IAAIS can work quickly with manufacturers to identify HD radio products to consumers who are blind or visually impaired. In the right circumstances, IAAIS may even be able to help seed markets with HD radios for people who wish to use the new, HD-RRS and HD radio services in general.

Section 2 The potential impact on DAB when radios sold in the US are accessible to blind or visually impaired citizens.

As we suggested above, making HD radios that consumers who are blind or disabled can use makes good marketing sense; but IAAIS asks the Commission to view these new, interactive telecommunication devices in the light of Section 255 of the Telecommunications Act. History has borne out the validity of the argument that electronics manufacturers are remiss in making products accessible without regulation.

With this new class of radio services, the Commission has the historic opportunity to require manufacturing of the HD radio units for consumers to meet accessibility guidelines. Manufacturers which contend that the cost is too high to make accessible units should consider the multiple millions of radios which could be sold to disabled Americans. IAAIS suggests that the Telecommunication Industry Association (TIA) guidelines² would be an excellent starting place for manufacturers to go in learning what constitutes accessibility.

² <http://www.tiaonline.org/access/guide.html>

According to the TIA "There are a number of inhibitors to designing more accessible products. Fortunately, many of these inhibitors are exaggerated, if not completely false."³ Clearly, an HD radio which is not even in production yet can follow the generally acceptable principle of Accessible by Design. This not only saves money for the manufacturer, but makes the acceptance of HD radio speed more quickly through a larger radio buying population.

With accessible HD radios coming to market, IAAIS members can begin planning for program delivery on the new, digital program stream while assisting new reading service customers in finding HD radios that will be appropriate to the entire family – including those with disabilities. During hybrid mode operations IAAIS envisions existing reading service listeners will be able to continue using the SCA units provided to them by the radio reading service while those new listeners with the ability to purchase an HD radio will be encouraged to do so and receive enhanced services.

Finally, the HD radios sold with the ability to receive auxiliary programming; successfully demonstrated in National Public Radio's Tomorrow Radio Project, which may have the additional channel capacity enabled through a broadcaster authorization must likewise be accessible.

Section 3 Use of extended hybrid modes

IAAIS is extremely interested in the potential to use the extended hybrid mode for privately received transmissions. IAAIS is participating in testing by National Public Radio, iBiquity, Harris, Kenwood USA and others to learn if a service such as a RRS can be delivered using low bit-rate encoders on the extended hybrid partitions. We ask the Commission to similarly assist in every manner feasible as these partitions while small now, may establish the protocol and precedent for how a radio reading service can be delivered in the near future.

IAAIS sees the potential benefit of having the extended hybrid mode as “home” for its member stations. In fact, IAAIS is the perfect test service for such an application. As most reading service signals are predominantly human speech the codec can be smaller and monaural. The digital information sent to radios can be accessed only after authorization – protecting the reading service copyright exemption for use of the thousands of print materials read aloud.

The potential to offer new services is one of the many promises of DAB. IAAIS members know that nation-wide, a majority of eligible individuals (blind, legally blind, visually impaired, and physically disabled) never learn that there is a reading service in their community and go to their graves without the free help. With a successful implementation of the extended hybrid mode to transmit a reading service, IAAIS members will gain a valuable pathway into the homes of men and women in need while preserving their privacy and dignity.

There is potential for great good, however, should the tests for extended hybrid operation prove damaging to the analog main program channel, adjacent frequencies, or the existing SCA service, IAAIS members should have access to a portion of the main, multiplexed, 96 kHz channel. This presumes that the Commission will rule favorably on NPR's request to authorize multiple channels in the main program channel — and that that at least three discrete digital audio services can be multiplexed in this spectrum. While IBOC and NPR Engineers are optimistic that extended hybrid

³ <http://www.tiaonline.org/access/guide.html#part1>

operation will be viable, IAAIS members cannot afford to wait until full digital mode to begin digital operations in the event of insurmountable problems.

Section 4 Multiple program streams per station

The Commission specifically asked for comment on their policy on the priority of new, digital services. Given the higher audio quality and the ability to transmit data-type services over a digital signal, it stands to reason that competition for these data-bits will be fierce. IAAIS feels that before any broadcaster offers income generating secondary streams they must first provide space for community services such as radio reading services for blind or disabled peoples.

IAAIS member stations should have right to first choice of digital service. Without limiting this priority to non-commercial stations, we suggest HD stations using multiple program feeds first give priority to that community's existing reading service. In communities where there is no reading service, or when the FM broadcaster is unaware of such a service, FM broadcasters should be required to contact IAAIS about providing radio reading services in the community. Once extended hybrid mode and then full digital operations are authorized, reading services can matriculate to those spaces. Again, IAAIS asks the Commission to create in those extended hybrid and later in full digital space a "home" for reading services.

IAAIS members have demonstrated their willingness and ability to provide these vital information access services for more than 35 years. While we understand that a station may elect to move to digital operations precisely for the income generating opportunities of programming more than one channel, the license is for the good of the community, not the sighted-only community. By making the requirement to carry a reading service the first priority when choosing a secondary audio stream, the Commission will provide incentive for all radio station operators to follow public radio's led, and do all in their power to make the change to all-digital operation happen more quickly.

Section 5 Protection for reading services in digital mode similar to existing rules for SCA operation.

Like as is the case with SCA use reading services on the radio will need protection by the Commission. Increasing the profit margin of a broadcast station has all too often led to the impairment to a local reading service or its elimination. The Commission recognizes the need for such protection in this FNPR and NOI, and in public statements by the Commissioners. What we seek from the Commission in this regard is: a designated section of the digital spectrum for use only by a reading service, protection in digital operations similar to those afforded reading services under rule 82-1, and the ability to have the reading service channel-spaces grow in program channel capacity along with the rest of broadcaster's capacity in the future.

Section 6 Protection of SCA services from DAB interference

The successful enhancement of the entire spectrum by DAB technology follows a path very well known to reading services – it has real potential to harm the reading service listener's ability to receive the only such service available. Paging systems, RBDS, RDS, Low Power FM, and now

DAB have all offered the community some benefit; but have all negatively impacted the ability of blind and visually impaired people to receive their reading service.

IAAIS asks the Commission to adopt a “First do no harm” policy on DAB and any other system that might impact listeners ability to enjoy reading via their local radio reading service. For example: In the event that tests on using the extended hybrid mode shows impairment to the local reading service on analog SCA, the rules must require the cessation of extended hybrid mode for that station and it must open the auxiliary program channel for use by the reading service. This will again assist in the speed of adoption of digital broadcasting by making the success of all concerned part of the industry-wide cross over.

Other solutions when the DAB interference is not caused by the same licensee as the SCA provider might include the installation of an antenna at the site of the interference to assist the SCA service listener in receiving as clear a signal as before DAB commenced – at the sole expense of the DAB broadcaster and within 30 days of complaint.

Regardless of the solution that the Commission elects to employ in protecting reading services on analog SCA, blind or disabled SCA service users should not suffer degraded service so that a broadcaster can reap greater profits from their enhanced abilities.

Section 7 Subscription style services

IAAIS wishes to have reading services delivered via off-the-shelf DAB radios with “unlock codes” maintaining our subscription-like nature. IAAIS members spend inordinate amounts of operating capital to purchase and distribute SCA receivers that historically have vastly poorer performance than a similarly priced, FM table top radio. The listeners to the reading service generally pay no fee for use of the service and can keep the radio for as long as they live in range of the service and continue to be medically eligible.

While the Commission may feel compelled to impose spectrum fees for DAB audio or data content delivered under a subscription model, IAAIS ask the Commission to exempt reading service from any and all such fees. This will be vital to the successful transition for reading service listeners who statistically are unable to afford special program fees or the ongoing costs of a reading service.

Section 8 Emergency alerts

Listeners to reading services tune in to the service an average 2-3 hours per day and some have no other listening habit other than the reading service. This creates a dangerous, and potentially life threatening situation for an already at-risk population. We also remind the Commission that without an accessible HD radio, no emergency alerts on DAB will reach this population.

Most IAAIS members do their best to monitor EAS in their communities so as to interrupt the reading service programming with directions on where to tune for the reading service audience. This entirely manual method would be vastly improved if the Commission were to include reading services in the EAS notification systems as a part of broadcaster’s transition to digital.

We suggest that the station carrying the SCA and the Digital reading service be directed to work in collaboration with the reading service so as to provide highest levels of cooperation and coordination on protocols and cost-sharing. We do not envision a system that will allow the licensee to capture the audio feed of the reading service beyond the initial alert instructions. A simple directive as to where to tune at times of emergency alerts will accomplish the goal of informing the radio reading service public.

CONCLUSION

Radio reading services for the population of blind and physically disabled people have more than 35 years of history on FM-SCA, delivering vital, local information that would otherwise be inaccessible to the intended audience. They have done so in the face of severe competition for spectrum by far larger entities with commercial interests as well as community interest. While everyone agrees that the work of radio reading services is good for the community and should be widely available, it is only through the Commissions' rules and specific Congressional mandates that reading services have been able to continue offering print access to the Nation.

On behalf of its members and the listeners to those member stations, IAAIS asks the Commission to take this opportunity to establish a DAB home for reading services and require the new class of DAB receivers to conform to accessibility guidelines for use by people with disabilities. Allow reading services to grow with the growth of DAB, and protect its community service from future incursions.

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For

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